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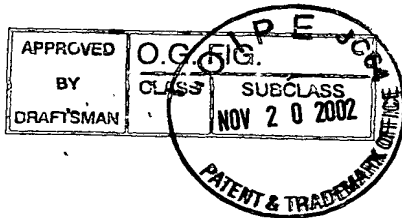
TECH CENTER 1600/2900

FIGURE 2a

Genomic sequences of the human NNT-1

```
1  aacctgcgag tgggcctggc ggatgggatt attaaagctt cgccggagcc
51  gcggtctgcc ctccactcc gccagcctcc gggagaggag ccgcacccgg
101 cgggccagc cccagccccA TGGACCTCCG AGCAGgt--- -----
    ----- ( >1 kb ) ----- tgaaaaccca

151 aactagccct gctcttcata acatgacaag cagcgcccca tctgatacct
201 aaaccgacca agtcacagcc ctccaactca ccctctgcct gccagacct
251 caccacatcc ttgstggact caaacctcaa ccgcactaaa tcaaccaa
301 cccaagtcta aactaatctg aaacttttaa agtaaccag tccttaaacc
351 taacctagcc caatgccaat tatacttacc ctagccaaac cctaactgcc
401 tttgccagtc caaagtgtcc actgaatcct caccttggtc ctactgaaa
451 atcccagaaa agcatatttc ccactgccc acatccctcc ttacagcacc
501 caaccctggc ctctggactc ctggtatcct gggatgtcca aactctgcag
551 tgccatcagc caacaagccc gactcgtcaa atgcacctct ctcccttctt
601 gtccccaccc ttgcaggctg atggaaaggc ctcatgaag tccaactttt
651 ccccacctaa caccaagaac ggggtgaacc tccacactgc caccgttccc
701 tgagagttag cactaaatct ctttcaatct aacccacccc tacacttccc
751 aactcagga atcacatcct agaataacc caaaactaag ccccataagg
801 cagcccgacc ctagtggctt aacctatac cttgcttctt atgggtgagt
851 ctgttcttgg cggccgctc tctcctgctt cctcccttag agctgactgt
901 gctcagcctg ccagctctga catgtgctgt ctccaccct ctgactcccc
951 tcaagctgca gtgggactgg aagactggca ggaagctagg gtacaactgg
1001 aacacaggca ggtcgacctg cagtccttag gcctggcccc gtcctccat
1051 gtacacacat atacatgttg gcacacacac agtggcacac atgcaaaga
1101 ctctctcagc tgacacacag atccattctc aagtatctac tgatagacac
1151 tcatgcgtgc caagtctca tctcaaaca tacacatgcc tctctttctc
1201 tcccgtcttg ccaggagtgt tccccctcct ccatccccct tgctcccat
1251 ctggtgtccc accctcacc cccaccagc ccaagggtggg gacagacacc
1301 tgaggggctg ccagctgctt cccgtgtgg gcccgggccg cgctcatgct
1351 tctcgtccat cctgcccaca gGGGACTCGT GGGGGATGTT AGCGTGCCCTG
1401 TGCACGGTGC TCTGGCACCT CCCTGCAGTG CCAGCTCTCA ATCGCACAGG
```



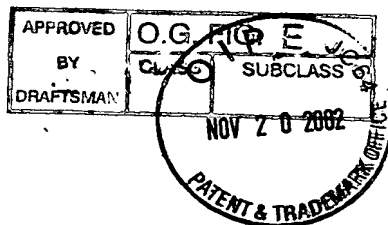
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FIGURE 2b

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1451 GGACCCAGGG CCTGGCCCTT CCATCCAGAA AACCTATGAC CTCACCCGCT
1501 ACCTGGAGCA CCAACTCCGC AGCTTGGCTG GGACCTATgt gagtatccag
1551 cgtaggaatc tgggagttgg ggaggagtga ggagttgggg aaagacagtc
1601 ctaaccgtgg agggttcttg taaatgatgg ggtgaggagg ggctcttttg
1651 ctcccaccag tccccctgtc tgggtctatct cctgcccttc cctcttaggt
1701 ggccccccca ctcccccatc cctggcccca ggactaggca tgtgggcagg
1751 cctcgcaccc gccttggccc attgccccac tggctgccag cccagccgcc
1801 cgccctcccc tgggggcccgg ggaagtctcc tctgtttaca ccgtgtttgt
1851 gtgtctcttg cgcgggcccgg gttgggtggg gacagagggg cccacctcc
1901 catgcctgcg ttccagctcg cctctgcccc cagacctggg gccctgctgc
1951 tctggacca cggggcctccc ttccgtctgc ctctcccatc ctagctgggc
2001 ctcttagggg ggtcatgggg gaaggggact gtagggaacc caggcagtag
2051 tggcaggggg tttaggggtg ggatggaggt tatgctgtaa ggatttgggg
2101 gtggtccaga ggtgttcaga gagcccagga gagaaggaag gagggttgga
2151 ggagccgagg caccatgggg aaccggcccc ctcttcccgt gttcctcttc
2201 cacatcccag accctactct ggagccaggg aaagaaaagg gaagaagggt
2251 gcgggggagc tgggtccagc cccaggatac accgaggaaa ttagtttgtc
2301 tctgtgcttg tcagcgtgtg aacctcccc tgggcccctg cctatcccag
2351 gcctctcccc ttgcttctcc cttctttccc agttatacat ctccctcatc
2401 cctttcccctg ggccccagcc gctccccga ggggttgaaa gggctctgcc
2451 ctcttcccta taccatgctg tcttccatag ccttccctct gtccactca
2501 tgagactgcc tccatttctt ccttctgcaa cctgctcct atcagctgaa
2551 cccttcttct ggagtgttag tgagtaccg tctctccca gccctcagc
2601 tgggtgggct ggggtgtgca gcggcaaatg gggctctggt tccaatggg
2651 cactctcatc tctctcttgt tccttgtgca gaaaacctt gcttactcc
2701 actgccctct ctagttcccg acccttttct tctcctggct ttcctgcca
2751 aatttctcca aggagtggtc tacacctct gcctccactt cctctccacc
2801 cactcacttc ttaacccct gcaatctggc ttccaggccc cagcaatggg
2851 tctctccaag gtcgtcaggc acctccttgc caagcccgac agtgtttga
2901 aggctcattc tccttgtgt ctgttttgca gccacactgc tgagcgtgc
2951 tgccttctcg aactcctct ccttgggtctc tgactctcc tgggccacct
3001 tctacctctc cagctcctcc aggtcctct tcctctctgt cctgccccca
3051 cagcgggcac tctcccaagg tttgcccacc cagccaatca gcagtcctt



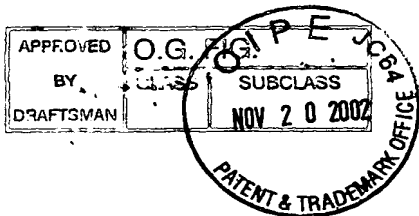
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FIGURE 2c

3101 cctgagcgtc ttgtgcgtct cctcctcctc ctttttctac gcctctccat
3151 tggagagctc accaccgcca ctgcttcaac tgtcacctgc atacaaatga
3201 tatecttatt ggaaaaactc agggaggcca tgaacaaaga agcctagcat
3251 ggagacaggg ccagtgtcag gggacacaaa aaatagaaac tttgggagca
3301 ggtatctcct tgggtggtgag ccagcggtc tgcctcctc cttccccatc
3351 accctctcct tttcacagCT GAACTACCTG GGCCCCCTT TCAACGAGCC
3401 AGACTTCAAC CCTCCCCGCC TGGGGGCAGA GACTCTGCCC AGGGCCACTG
3451 TTGACTTGA GGTGTGGCGA AGCCTCAATG ACAAAGTGC GCTGACCCAG
3501 AACTACGAGG CCTACAGCCA CTTTCTGTGT TACTTGCGTG GCCTCAACCG
3551 TCAGGCTGCC ACTGCTGAGC TGCGCCGAG CCTGGCCCCAC TTCTGCACCA
3601 GCCTCCAGGG CCTGCTGGGC AGCATTGCGG GCGTCATGGC AGCTCTGGGC
3651 TACCCACTGC CCCAGCCGCT GCCTGGGACT GAACCCACTT GGACTCCTGG
3701 CCCTGCCCAC AGTGACTTCC TCCAGAAGAT GGACGACTTC TGGCTGCTGA
3751 AGGAGCTGCA GACCTGGCTG TGGCGCTCGG CCAAGGACTT CAACCGGCTC
3801 AAGAAGAAGA TGCAGCCTCC AGCAGCTGCA GTCACCCTGC ACCTGGGGGG
3851 TCATGGCTTC tgacttctga ctttctcctc ttcgctcccc cttcaaacc
3901 tgctccact ttgtgagagc cagccctgta tgccaacacc tgttgagcca
3951 ggagacagaa gctgtgagcc tctggccctt tcctggaccg gctgggctg
4001 tgatgcatc agccctgtct cctccccacc tcccaaaggt ctaccgagct
4051 ggggaggagg tacagtaggc cctgtcctgt cctgtttcta caggaagtca
4101 tgctcgagg agtgtgaagt ggttcaggtt ggtgcagagg cgctcatggc
4151 ctctgcttc ttgcctacca cttggccagt gcccaccag ccctcaggt
4201 ggcacatctg gagggcaggg gttgaggggc caccaccaca catgccttc
4251 tggggtgaag ccctttggct gcccactct ccttgatgg gtgttgctcc
4301 cttatcccca aatcactcta tacatccaat tcaggaaaca aacatggtgg
4351 caattctaca caaaaagaga tgagattaac agtgcagggt tggggtctgc
4401 attggaggtg ccctataaac cagaagagaa aatactgaaa gcacaggggc
4451 agggacagac cagaccagac ccaggagtct ccaaagcaca gagtggcaaa
4501 caaaaccca gctgagcatc aggaccttgc ctogaattgt cttccagtat
4551 tacggtgcct cttctctgcc ccctttccca gggatatctgt gggttgccag
4601 gctggggagg gcaaccatag ccacaccaca ggatttcctg aaagtttaca
4651 atgcagtagc attttggggt gtaggggtggc agctcccaa ggcctgccc
4701 cccagcccca cccactcatg actctaagtg tgttgatta atatttattt



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FIGURE 2d

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4751 atttgagat gttatttatt agatgatatt tattgcagaa tttctattct
4801 tgtattaaca aataaaatgc ttgccccaga acttagtctc tttgcccagc
4851 ctcacccctc ctggtgctca tcagactctt gccaccctg gctccactc
4901 cctgcttgcc tctggtggag ctgcacagag ctctgggaag aggccctctt
4951 cctccccgca ctggggcgat gggcgcacct cagacttacc cactgctgct
5001 gccaccacca accccttgat ccctcagtcc tcccacacag cttctgtcca
5051 ccccagggtt ccctcacccc acctttgcta agtcttcctc a

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIGURE 3

Amino acid Sequence of Human NNT-1 cDNA

```

-27                               1
MDLR AGDSWGMLAC LCTVLWHLPA VPALNRTGDP GPGPSIQKTY 17

DLTRYLEHQL RSLAGTYLNY LGPPFNEPDF NPPRLGAETL PRATVDLEW 67

RSLNDKLRLT QNYEAYSHLL CYLRGLNRQA ATAE LRRSLA HFCTSLQGLL 117

GSIAGVMAAL GYPLPQPLPG TEPTWTPGPA HSDFLQKMDD FWLLKELQW 167

LWRS AKDFNR LKKKMQPPAA AVTLHLGAHG F* 198

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0001704 00100
103130 104100

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FIGURE 4

Nucleotide Sequence of Murine NNT-1 cDNA

1 TATTATTAAA GCTTCGCCGG AGCCGCGGCT CGCCCTCCCA CTCCGCCAGC
51 CTCTGGGAGA GGAGCCGCGC CCGGCCGGCC CGGCCCCCAG CCCCATGGAC
101 CTCCGAGCAG GGGACTCGTG GGGGATGTTA GCTTGCCTAT GCACGGTGCT
151 GTGGCACCTC CCTGCAGTGC CAGCTCTTAA TCGCACAGGA GATCCAGGCC
201 CTGGCCCCCTC CATCCAGAAA ACCTATGACC TCACCCGCTA CCTGGAGCAT
251 CAACTCCGCA GCTTAGCTGG GACCTACCTG AACTACCTGG GGGCCCCTTT
301 CAACGAGCCT GACTTCAATC CTCCTCGACT GGGGGCAGAA ACTCTGCCCC
351 GGGCCACGGT CAACTTGGA GTGTGGCGAA GCCTCAATGA CAGGCTGCGG
401 CTGACCCAGA ACTATGAGGC GTACAGTCAC CTCCTGTGTT ACTTGCGTGG
451 CCTCAACCGT CAGGCTGCCA CAGCTGAACT CCGACGTAGC CTGGCCCCACT
501 TCTGTACCAG CCTCCAGGGC CTGCTGGGCA GCATTGCAGG TGTCATGGCG
551 ACGCTTGGCT ACCCACTGCC CCAGCCTCTG CCAGGGACTG AGCCAGCCTG
601 GGCCCCCTGGC CCTGCCCACA GTGACTTCCT CCAGAAGATG GATGACTTCT
651 GGCTGCTGAA GGAGCTGCAG ACCTGGCTAT GGC GTTCAGC CAAGGACTTC
701 AACCGGCTTA AGAAGAAGAT GCAGCCTCCA GCAGCTTCAG TCACCCTGCA
751 CTTGGAGGCA CATGGTTTCT GACCTCTGAC CCTTAACCCC CACACCTCCA
801 GGCCCAGTCA GCTGTGCTT

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FIGURE 5

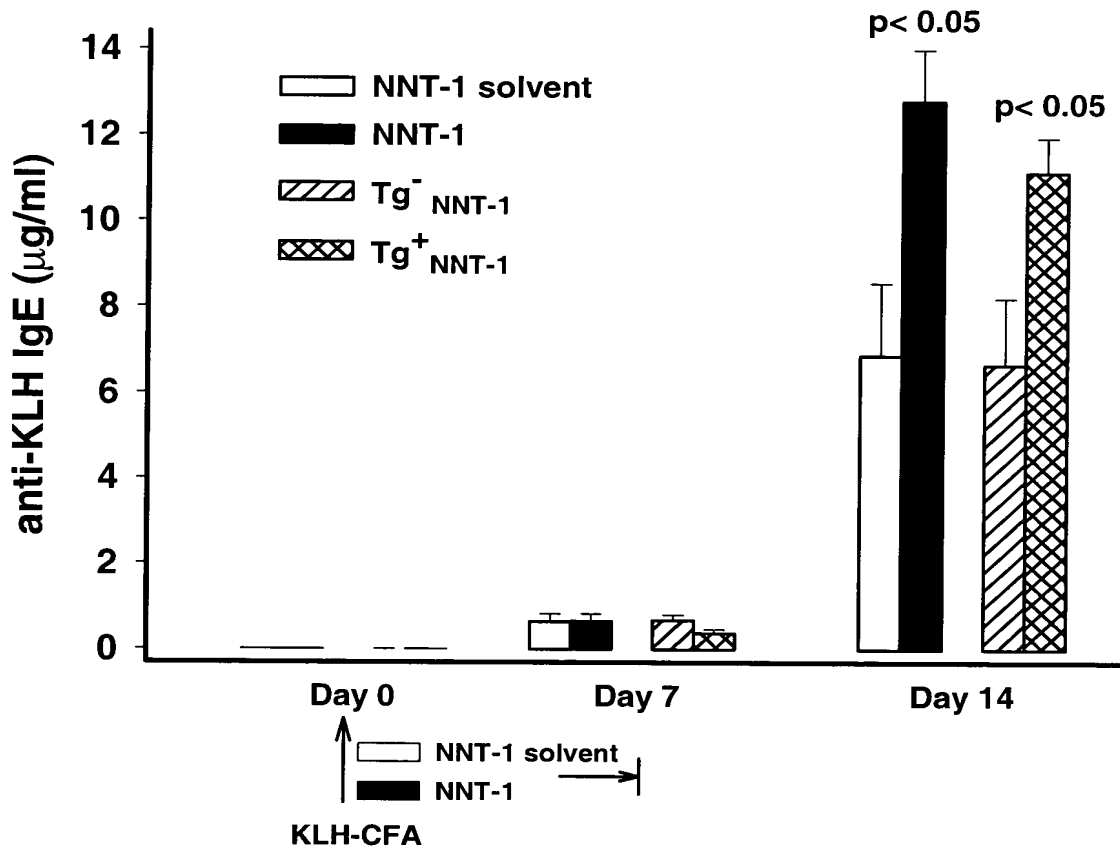
Amino Acid Sequence of Murine NNT-1

-27	1		
		MDLRAGDSWG MLACLCTVLW HLPAVPALNR TGDPGPGPSI QKTYDLTRYL	23
		EHQLRSLAGT YLNYLGPPFN EPDFNPRLG AETLPRATVN LEVWRS�NDR	73
		LRLTQNYEAY SHLLCYLRGL NRQAATAELR RSLAHFCTSL QGLLGSİAGV	123
		MATLGYPLPQ PLPGTEPAWA PGPAHSDFLQ KMDDFWLLKE LQTWLWRSİK	173
	198	DFNRLKKKMQ PPAASVTLHL EAHGF*	198

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FIGURE 6



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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FIGURE 7

